

What is claimed is:

1. A system comprising:
 - at least one electronic component;
 - a back-up battery to provide a back-up voltage supply on a back-up supply node;
 - a battery check circuit to be powered by the back-up voltage supply and to
 - determine, in response to an attempt to apply power to the at least one electronic component, whether to provide power from a battery to the at least one electronic component by comparing the battery power level to a predetermined power level.
2. The system of claim 1 wherein the battery check circuit provides power from the battery to the at least one electronic component if the battery power level is at least the predetermined power level and wherein the battery check circuit prevents the battery from providing power to the at least one electronic component if the battery power level is less than the predetermined power level.
3. The system of claim 1 wherein the predetermined power level is based on a voltage or power requirement of one or more of the at least one electronic component.
4. The system of claim 1 wherein the battery check circuit comprises:
 - a latch which is set to a first state in response to the system being turned on to provide power exclusively from the back-up supply node when the system

is turned on, regardless of the battery power level of the battery.

5. The system of claim 4 wherein the latch which is reset to a second state when a signal indicating availability to the at least one electronic component of power from the battery is received by the latch, the battery check circuit disconnecting the back-up supply node from the battery check circuit when the latch is in a second state.
6. The system of claim 4 wherein power from the back-up battery is supplied to the at least one electronic component while the latch is in the first state, and wherein power from the back-up battery is disconnected from the at least one electronic component when the latch is in a second state.
7. A method comprising:
 - powering, using a second battery, a battery check circuit for testing a power level of a first battery upon system startup regardless of a power state of the first battery;
 - testing whether the power level of the first battery is less than a first level responsive to a stimulus that indicates application of power is desired but before power is provided;
 - preventing the first battery from powering an electronic component if the power level is less than the first level; and
 - enabling circuitry to provide power from the first battery to the electronic component if the power level is at least the first level.

8. The method of claim 7 further comprising:
 - latching power from the second battery upon receiving said stimulus that
 - indicates application of power is desired; and
 - asserting a system shutdown signal prior to allowing power from the first battery
 - to be applied to the electronic component.
9. The method of claim 7 wherein the first level is based on a safe voltage supply range for the electronic component.
10. The method of claim 7 further comprising:
 - disconnecting power provided by the second battery from the battery check
 - circuit after testing the power level of the first battery.
11. The method of claim 7 wherein powering the battery check circuit comprises
 - sensing an on button being depressed;
 - enabling power to the battery check circuit;
 - maintaining power to the battery check circuit while the power level of the first
 - battery is tested.
12. The method of claim 11 wherein maintaining power to the battery check circuit comprises setting a latch which has its output coupled to enable a gate connecting the battery check circuit to the second battery.

13. The method of claim 12 wherein preventing the first battery from powering the electronic component comprises:

maintaining the electronic component in a disconnected state from the first battery; and
disabling the battery check circuit.

14. The method of claim 13 wherein disabling the battery check circuit comprises resetting the latch to disconnect the battery check circuit from the second battery.

15. A method comprising:

receiving an enabling signal;
latching power from a first battery responsive to the enabling signal;
powering a test circuit from the first battery via the latch circuit;
testing a charge level of a second battery via the test circuit; and
asserting a shutdown signal if the charge level is less than a predetermined charge level.

16. The method of claim 15 further comprising:

asserting a power supply enabling signal if the charge level is greater than or equal to the predetermined charge level.

17. The method of claim 15 further comprising:

disconnecting the test circuit power from the first battery if the second battery has insufficient remaining power.

18. An apparatus comprising:

a main battery, the main battery having a charge status;

a backup battery;

a plurality of system components;

a power switch; and

a battery check circuit that is, in response to actuation of the power switch, powered during a battery test interval exclusively by the backup battery, regardless of the charge status of the main battery, the battery check circuit to determine based on the charge status of the main battery whether to supply power from the main battery to the plurality of system components.

19. The apparatus of claim 18 wherein said apparatus is a portable computing device and wherein said plurality of system components includes a processor.

20. The apparatus of claim 18 further comprising a voltage regulator, wherein the battery check circuit enables the voltage regulator if the charge status of the main battery is at least a predetermined charge level.

21. The apparatus of claim 18 wherein the battery check circuit is to assert a power supply enabling signal if the charge status is greater than or equal to a

predetermined charge level.

22. The apparatus of claim 21 wherein the battery check circuit is to assert a shutdown signal prior to supplying power from the main battery to the plurality of system components.
23. The apparatus of claim 22 wherein the battery check circuit is to reset a latch to disconnect the battery check circuit and the backup battery if the main battery has insufficient remaining power.